

① Monitor

③ System unit

⑤ Speaker

⑦ Keyboard

② Modem

④ Mouse

⑥ Printer

Examples of Manual Input Devices

Keyboard



Numeric Keypad



Pointing Device



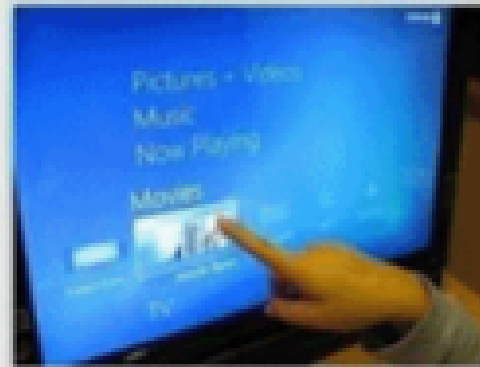
Remote Control



Joystick



Touch Screen



Scanner



Graphics Tablet



Microphone



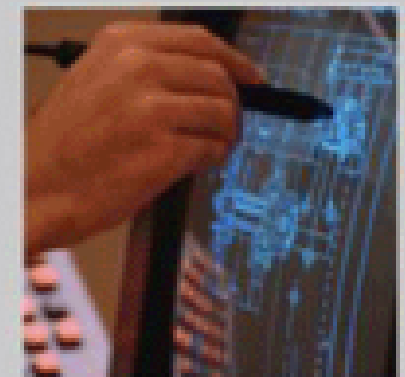
Digital Camera



Webcams



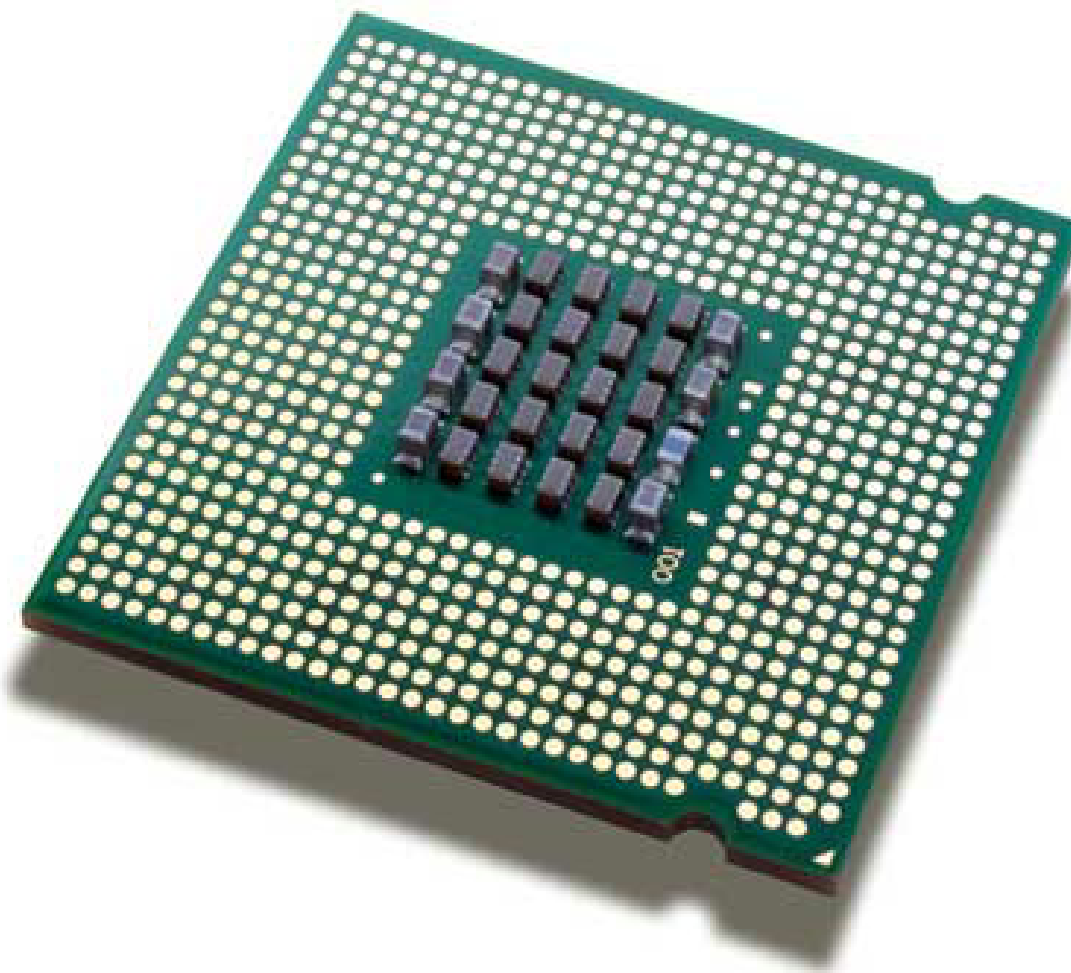
Light Pens



NOTES

- **Note:** The most common use keyboard is the QWERTY keyboard. Generally standard Keyboard has 104 keys
- **RAM** (Random Access Memory)
- **ROM** (Read Only Memory)

Central Processing Unit (CPU)



Secondary Memory

- Main Examples
- 1- Hard Disk
- 2- Optical Disk
- 3- Flash memory

Hard Disk

- Called Disk drive or (HDD)



optical disc drive



- uses laser light to store data
- There are three main types of optical media:
- 1- CD “Compact Disk” can store up to 700MB
- 2- DVD “Digital Video Disk” can store up to 8.4 GB
- 3- Blu-ray disc. can store up to 50 GB

Output devices Examples

- 1- A monitor



LCD: Liquid crystal display



CRT: Cathode Ray Tube

Output devices Examples

- 2- Printer



Laser Printer



Ink Jet Printer



Dot Matrix Printer

Unit of Measurements - Storage

Storage Units		
Bit	BIT	0 or 1
Byte	B	8 bits
Kilobyte	KB	1024 bytes
Megabyte	MB	1024 kilobytes
Gigabyte	GB	1024 megabytes
Terabyte	TB	1024 gigabytes

Unit of Measurement -Speed

- The speed of CPU measured by unit called Hertz (Hz)
- 1 Hz represent 1 cycle per second.

CPU SPEED MEASURES

1 hertz or Hz

1 cycle per second

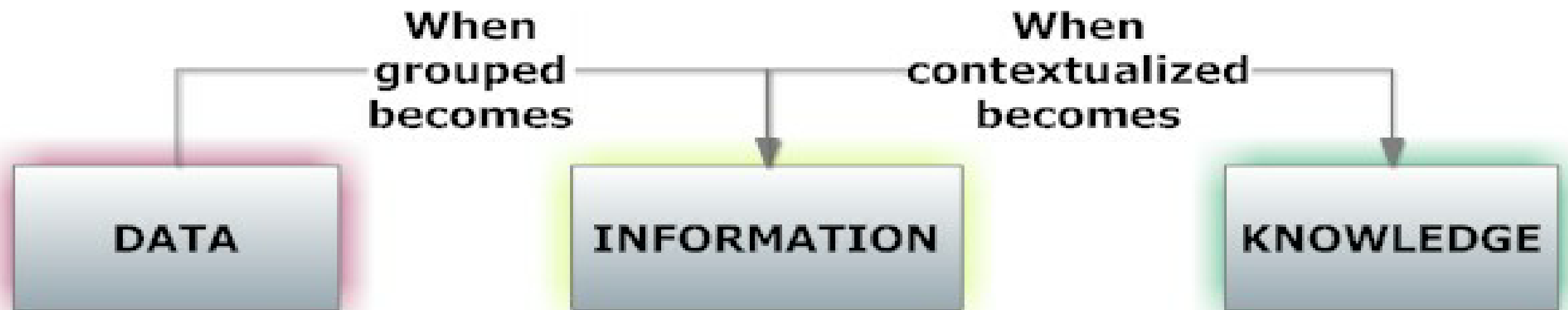
1 MHz

1 million cycles per second or 1000 Hz

1 GHz

1 billion cycles per second or 1000 MHz

Data, Information and Knowledge



- Words
- Images
- Numbers



- Purpose
- Meaning
- Process



- Structure
- Growth
- System



Viruses

- A computer virus is an application program designed and written to destroy other programs.
- Examples :
- 1- **E-mail viruses**
- 2- **Trojan horses**
- 3- **Worms**